

What is claimed is:

1. A light-emitting diode (LED) encapsulation material and manufacturing process, characterized in comprising a photo-sensitive polymer constituting at least one of an Oligomer or a reactive
5 Monomer, and a Photoinitiator; after a LED chip encapsulation, the photo-sensitive polymer is exposed to visible light irradiation, free of infrared rays, thereby triggering a free radical polymerization reaction of the photo-sensitive polymer, and rapid curing thereof under room temperature, eliminating the need for heating in a furnace during
10 encapsulation manufacturing process of the light-emitting diode, while prompting rapid curing thereof, and thereby enhancing production efficiency.
2. A light-emitting diode encapsulation material and manufacturing process comprising the photo-sensitive polymer constituting at least
15 one of an Oligomer or a reactive Monomer; after a LED chip encapsulation, irradiation with an electron beam is carried out, whereby electron bombardment is utilized to accomplish amalgamation of material molecules, thereby triggering free radical polymerization reaction of the fluid photo-sensitive polymer, and rapid
20 curing thereof under room temperature, eliminating the need for

baking during encapsulation manufacturing process of the light-emitting diode, while prompting rapid curing thereof.

3. A light-emitting diode encapsulation material and manufacturing process, characterized in comprising a photo-sensitive polymer constituting at least one of an Oligomer or a reactive Monomer, and a Photoinitiator, after a LED chip encapsulation, the photo-sensitive polymer is exposed to ultraviolet light, thereby triggering a free radical polymerization reaction of the photo-sensitive polymer, and rapid curing thereof under room temperature, eliminating the need for heating in a furnace during encapsulation manufacturing process of the light-emitting diode, while prompting rapid curing thereof, and thereby enhancing production efficiency.
4. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 1, wherein the encapsulant material further includes 0.1%~20% of a Silane coupling agent.
5. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 2, wherein the encapsulant material further includes 0.1%~20% of a Silane coupling agent.
6. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 3, wherein the encapsulant material

further includes 0.1%~20% of a Silane coupling agent.

7. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 1, wherein the encapsulant material further includes 0.01%~15% of ultraviolet absorber agent.
- 5 8. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 2, wherein the encapsulant material further includes 0.01%~15% of ultraviolet absorber agent.
9. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 3, wherein the encapsulant material
10 further includes 0.01%~15% of ultraviolet absorber agent.
10. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 4, wherein the encapsulant material further includes 0.01%~15% of ultraviolet absorber agent.
11. The light-emitting diode encapsulation material and manufacturing
15 process as claimed in claim 5, wherein the encapsulant material further includes 0.01%~15% of ultraviolet absorber agent.
12. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 6, wherein the encapsulant material further includes 0.01%~15% of ultraviolet absorber agent.
- 20 13. The light-emitting diode encapsulation material and manufacturing

process as claimed in claim 1, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

14. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 2, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

15. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 3, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

16. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 4, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

17. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 5, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

18. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 6, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

19. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 7, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.

20. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 8, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.
21. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 9, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.
22. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 10, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.
23. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 11, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.
24. The light-emitting diode encapsulation material and manufacturing process as claimed in claim 12, wherein the encapsulant material further includes 0.01%~20% of Hindered Amine Light Stabilizer.